

TRIP REPORT

28 November 1962

PLACE:

DATE: 20 November 1962

ATTENDEES:

PURPOSE: 1. To discuss the characteristics of the 3X to 12X enlarger is contracted to produce for the Agency.

2. To discuss the status of the 70 mm film reader is contracted to produce for USNPIC.

DISCUSSION; ITEM 1:

1. 3X-12X Enlarger. This enlarger contract is at a very early stage of development. First rough engineering drawings of various sub-systems are now being made. This is a CFFC contract, initial cost being Many characteristics of the design are not yet firm. In so far as tentative characteristics exist they are as follows:

a. Lens. Agency furnished.

(1) Schneider, 3 lenses, f=75-80 mm

(a) Componon, 1 lens

(b) Zenitar, 2 lenses

(2) B&L experimental lens, f=150 mm

b. Configuration

(1) Overall dimension along lens axis with 150 mm lens; approximately 12 feet.

(2) Overall dimension along lens axis with 75 mm lens; approximately 9 feet.

(3) If 150 mm lens is used enlarger must be horizontal; if 75 mm lens is used it may be vertical or horizontal but will probably be horizontal.

c. Auto-focus. There is at present an indicated preference for an extremely versatile horizontal set-up approximately the configuration of an optical bench. The purpose is to utilize better

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lenses as they become available. If the system is designed around a single lens or a specific group of lenses, then auto-focus systems could be incorporated, but the preference indicated above tends to obviate an auto-focus system.

d. Format. The enlarger is to print out a 2 1/4" X 2 1/4" negative area at all settings. It is to have the capability of centering such an area on films from 70 mm to 9 1/2 inches wide.

e. Film Handling. The enlarger should be capable of high speed film metering through the most advanced techniques, such as those used on the [] 10-20-40 enlarger. Maximum spool size is to be 250 feet.

f. Easel. The easel will be vacuum type with periferal grooves keyed to standard paper sizes, which may be cut off selectively when not required. Overall size 36" X 48".

g. Light Source. Very indefinite. Condenser not decided. Light will possibly be Hannovia mercury vapor arc.

h. Fluid Gate. [] is not familiar with this system. Considerable problems involved if camera is horizontal. Will probably cause considerable overrun.

RECOMMENDATIONS, ITEM 1:

1. Two primary USNPIC objectives are not likely to be met in this development:

a. Simple operation including auto-focus,

b. Fluid gate

2. It is not felt that design of a production enlarger is a fundamental objective in this development as far as the Agency is concerned.

3. With the help [] will doubtless produce a high-performance device. It is questionable to me whether they could do so alone. On the other hand, several of the personnel [] including the president [] were those who conceived and designed the Microtronic enlarger. My recollection of the performance of this device tells me that it approximates the characteristics set forth in USNPIC design objectives. It may be possible to have [] design and fabricate a "Mark II" Microtronic enlarger that would satisfy the additional requirements.

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4. The cost of the [] development (presently [] probably will be at least [] is meager by comparison to the cost of similar proposals from other concerns; e.g., the [] proposal, [] development, [] for each model thereafter.

5. On the basis of our experience with the [] contract, it has been found that joint contracts have certain limitations; such as, the impracticability of deviating from the objectives of the initiating organization - particularly if direct monitoring by the associate organization is not contemplated.

DISCUSSION, ITEM 2:

1. The [] Film Reader was thoroughly dismantled at the time of our visit [] was at USNPIC installing a new raster for imprinting the identification code on the "Planetary" reducing copy camera. [] stated that he believed delivery of the reader would be approximately two weeks after obtaining satisfactory code samples from the new raster.

CONCLUSIONS:

1. Following are observations of the device as I saw it.

a. Film spooling system is primitive. USNPIC now has knowledge of advanced design metering systems which should be set as standards for equipment requiring this accommodation.

b. System lacks human engineering and industrial design for attractive, business-like appearance.

c. It appears that the deviations in the width of standard film sizes, even in a given roll, are going to cause almost insurmountable difficulties in the code reader as it is presently designed.

d. In spite of the above criticisms I believe this is a good first phase effort for the money. I feel that [] on the basis of past performance, will accomplish a solution to the basic reading problem. It is apparent to me that the development cost has exceeded the contract by a considerable margin. Of course nothing was said of this at our meeting.

e. The requirement for a "quick-and-dirty" enlarged print, such as is available on this device, is becoming more apparent daily.

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f. The system, including the Planetary camera and the Reader-Viewer-Printer should provide USNPIC personnel with a good opportunity to evaluate and develop automated photographic storage and retrieval techniques.

ITEMS OF ADDITIONAL INTEREST:

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1. [] discussed briefly with [] reps a step-and-repeat contact printer for which [] is presently contracted to RADC. [] is of the opinion that the scanning type printer such as Log E and Concord will not consistently resolve over 100 lmm under operational conditions. Consequently, he is interested in a device which will print in a static state and will automatically handle the process including advancing the film at speeds competitive with the scanning printer. This development is at a very early stage at [] No specific characteristics could be obtained.

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Very respectfully,

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